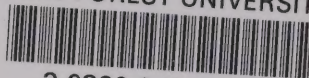


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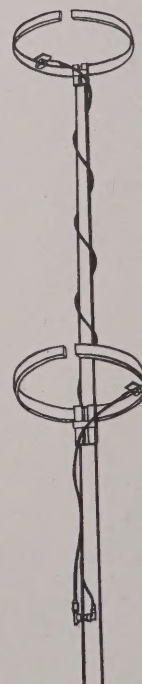
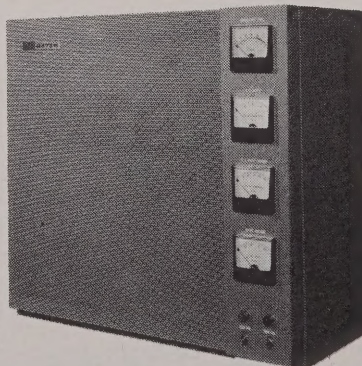
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JOURNAL OF COLLEGE RADIO

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ON THE COVER

This past spring, the FCC adopted a Notice of Inquiry and Proposed Rule Making in the form of a questionnaire to carrier-current broadcast operators.

JCR, in this issue, is printing two comments regarding this action; one by KLC Radio, Lewis and Clark College, and the other from WCCR, City College of New York.

These comments begin on Page 8.

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PUBLISHER'S REPORT

JACK
DESKIN

This year, The **Journal of College Radio** is being published in the Department of Communication of the University of Southern Mississippi. There will be very little change in the appearance of the **Journal**. The major change would have to be the moving of Ted Leitner from Editor-In-Chief to Senior Editor. Ted will be with KWTW in Oklahoma City. In his position as Senior Editor, he will write special features from time to time and act as a contributing editor-at-large.

Ludwell Sibley will remain as Engineering Editor. Besides writing the monthly engineering column, he will devote more time to expanding **JCR**'s editorial content in the engineering area.

The McCloskey Report, written by Bill McCloskey of WTTG-TV in Washington D.C., will continue to be a regular feature.

At present, the positions of Music Industry Editor and Associate Editor are open, but should be filled by the time you read this issue. Simply address your surveys and charts to MID, **Journal of College Radio**, Department of Communication, Box 5141, Southern Station, Hattiesburg, Ms. 39401. Speaking of music, **JCR** will feature more about the artists this year. Persons such as Steve Resnik of ABC Records will be discussing problems of the music industry.



Next month (October) is the ANNUAL issue of the **Journal of College Radio**. This year our aim is to list every IBS member station. Questionnaires were sent out last spring to all stations. While we realize this is too early for many stations to select a staff for the fall, printing deadlines make this early lead time necessary. We have added more to the listings this year, but we hope each of you will send us suggestions for next year's ANNUAL. It is our goal to improve our college station directory more each year. The equipment manufacturers directory is larger. We hope you consult this directory on your next equipment purchase. Many of the manufacturers are regular advertisers in **JCR**. It is to your advantage to read their advertisements when building new studios or replacing old facilities.



The FCC Inquiry into College Radio Stations will remain an issue this year. **JCR** will keep close watch on all developments in this area. The IBS Board of Directors, the IBS Legal Council, Bill McCloskey, Ludwell Sibley, and the editors of **JCR** will keep exploring this issue and reporting developments and results in **JCR**.

Letters to the Editor...

Editor:

Would it be possible to obtain a copy or reprint of the Publisher's Report five part series which appeared in Vol. 8, No. 2,3,4,5, and 6. I was able to read the last two articles in the series and I found them to be of great interest. The Department of Communication Studies here at Sacramento State College is currently undergoing some changes and I would like to present a copy of the articles to them.

I would have taken them from the station's copy of **JCR**, but the magazine is so popular around KERS it vanishes as soon as it arrives and if the Engineering Department of the station gets it first it comes back looking like a piece of Swiss cheese.

Thank you for any assistance in obtaining the articles and keep up the good work.

Regards,
Dennis W. Hammond
Student Representative
Department of Communication
Studies

Editor:

WTPC has produced a number of programs ranging from parodies on old radio plays to a 10-part series on the environmental crisis to a special interview and discussion series coordinated by the Principia Public Affairs Conference on "Television and the News: Responsible Journalism?"

We would like to exchange these programs for tapes produced by other college stations. Are there any tape-trading networks of college stations already established, and, if so, what are their addresses?

If there aren't, we would like to start one. Any stations interested in exchanging tapes should write:

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Very truly yours,
Randel O. Baehr
Program Director

CAPITOL HILL

McCloskey Report

WTTG-TV
NEWS

The Federal Communications Commission study of carrier current radio stations has been slowed down by the necessity of sending a second questionnaire to some stations, most of them on college campuses.

In action announced in April, the FCC sent forms to carrier current stations that they were aware of asking details of station operation. These forms were to be back to the Commission by May 4th.

Although the Commission seems to be happy with the response, it was felt that a second round of questionnaires should be sent. These were mailed to stations that either did not receive or did not respond to the initial survey.

Responses to this second round were due in Washington on August 15th.

As this is written, commission staffers were in the process of reviewing and assimilating the material they received in response to their probe. It was considered unlikely by staffers that the Commissioners would issue any rulemaking before September.

In addition to the replies from campus stations, the FCC says it is getting responses and inquiries from other low power operators.

What the Commission is studying is the possible imposition of some programming operational requirements on those carrier current systems which interconnect with other low power systems to form ad hoc networks, or which transmit some of their programming to a larger audience by way of Community Antenna (CATV) systems.

It is envisioned that these requirements might include compliance with FCC rules on fairness, personal attacks, political editorializing, sponsorship identification, lotteries, broadcasting of obscene, indecent or profane language and fraud by wire and radio.

(Continued on page 15)



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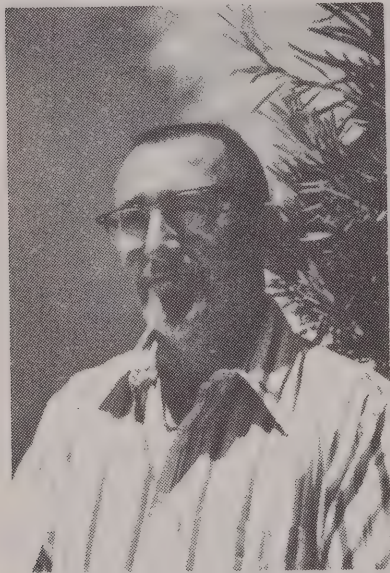
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THE PERSUASIVE DOCUMENTARY



Howard S. Martin
Chairman, Department of Radio-TV
California State College Long Beach

PART I

Vice-President Agnew mounts a general attack upon the media; Congress says harsh words about broadcasting in general and specifically asks for scraps of tape edited out of "The Selling of the Pentagon". It is obvious an attempt is being made to tell the media not to do "in-depth" studies. But one cannot study the details of a problem without coming to conclusions about the nature of and solution to that problem. In radio, these points-of-view may be presented effectively through the persuasive documentary. In the face of the attacks mounted against such programming, it may be that some college broadcasters are hesitant about researching, writing, and producing the documentary because they are not sure what guidelines to follow. The purpose of this article is to state briefly four guidelines which may be used to guide preparation of the persuasive documentary: First, a persuasive documentary must face real life problems through original research in the problem; second, it must be scripted properly; third, it must stimulate to action; and fourth, it must attract and hold attention. I shall deal with the last two guidelines in Part II of this article (October, 1971).

The persuasive documentary must face

Professor Martin began his career in broadcasting in 1949. He has worked in ETV at Wisconsin and Nebraska. He supervised the University of Nebraska's radio station and put Sacramento State College's station on-the-air. He is now in the process of putting California State's station on the air by October.

Professor Martin is the author of an article in the May issue of Educational Instructional Broadcasting and has another which will appear in a future issue of the Journal of Broadcasting.

Dr. Martin, an Associate Professor and Chairman of the Department of Radio-TV, CSC, received an M.A. in Political Science and a Ph. D. in Speech (radio).

life. Such a program's purpose is not to entertain; its purpose is to comment upon a socially significant contemporary problem, to investigate the numerous crevices of our social fabric. It may plumb for needed reform at various political levels; it may seek broad understandings; it may be a trip into the shallows and eddies of the main stream of modern problems. It need not be boring, or weighty, or intellectual; all facets of modern life have problems, and all are subjects for investigation. If, in the process, the documentary alludes to or recreates history, the end product must offer insight into current problems if it is to be a persuasive documentary. In other words, no matter from what materials the program is cut, it should face up to contemporary problems, and offer something significant that leads the listener to interpretation of reality.

The topics from which the persuasive documentary script draws must be anchored in truth — that is, the script must be built around a factual situation, one that can be "documented" in the dictionary sense of the word. To get authentic material requires "scholarly" research — the going to the original sources to seek out the truth. This smacks more than a little of the British traditions of "actuality". It is no accident that some local station

productions, and not a few network documentaries, avoid this technique, since it is expensive in time, money, and creative ideas; neither is it an accident that some of these programs lack substantiation of the idea presented — lack what the debate coach calls evidence. Of course, added to actuality the documentary also may present original materials by structuring the script in a fictitious manner with scenes built in the studio. Nets often tend to present documentaries through an eclectic approach; local stations too often lean heavily on studio discussion-interview speakers, and such programs tend to "interpret" facts rather than present the straight facts themselves. But whatever the method of presentation, "basic truth" should be the source material of the persuasive documentary. The script may draw interpretations from the facts, but it must not filter the facts in arriving at the conclusions.

Proper scripting is the second guideline to use in preparing the persuasive documentary. First and foremost, a proper script is built around a central thought. That thought may or may not be "important", but it, not the devices of characters, plot, or story should be what is stressed in the script. The idea is paramount, not the devices used to present the idea. When the device gets primary attention, the idea is relegated to second place; in the persuasive documentary, this is a fatal flaw. To illustrate: if the idea is to deal with discrimination against a family and the story or characterization dominate, the central idea is lost; the result is that we do not have a true persuasive documentary.

Another characteristic of proper scripting is arrangement of materials. Scripts which do not arrange facts and ideas and thoughts emotionally will lose viewers. Persuasion means striking at common human instincts, presenting a strong feeling of tone or plea, reaching experiences of listeners which cause them to respond to the purpose of the program. Persuasion is accomplished in part through the use of allusions, images, illustration, instances, direct and indirect suggestion. Persuasion avoids pure "reflective" approaches. People react emotionally, then rationalize by "logical" reasoning. The writer should analyze the audience before scripting, to determine audience desires and motivations. Rational approaches are then organized

(Continued on page 11)

AN ALTERNATIVE TO WHAT?

To the news of:

how the Pope reacted to the deaths of the Cosmonauts/where Tricia Nixon Cox spent her honeymoon/what the Dow Jones averages are/what the Sox did to the Pirates/a body count in Vietnam or one after a love-triangle slaying in L.A.

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SUCCESSFUL COLLEGE STATION MANAGEMENT

PART 2

by
Martin M. Goldberg

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Hierarchy of Management

How many times have you seen or heard of the little, old lady crying as her child is being arrested and saying "But, I gave him anything he wanted! How could he do such a thing?" Unfortunately, this too often is the case with college radio. That is, you're given a fully equipped station and told to run it. For the first few weeks (if you're lucky, for the first few months), the station operates well considering the operation must "find its way." But all of a sudden, it's no longer a station, but a toy. Everything falls apart—d.j.'s disregard programming, newcasters avoid news procedures, engineers "fool-around" with equipment. And then, the station manager calls a meeting at which everyone stares at each other, a few good remarks are made, and a few staff members' names

are mentioned and all the troubles are blamed on them. So, the so-called "troublemakers" are suspended from the station, but in a few weeks, the troubles begin again. Another emergency management meeting is held and possibly the consensus is that new programming is needed. The new programming is attempted and again there are numerous problems. Another meeting is called at which the station manager threatens to quit, but is talked into staying on since everybody knows that he (station manager) is doing ten times more than anyone else. On and on the problems occur and never once does the management possibly think that it may be their fault. It's hard to face mistakes when you've been

made a manager because you're supposed to know what you're doing, but it is even harder to admit such mistakes.

One way of avoiding many management problems is to set-up an effective hierarchy of college station management. First, one fundamental problem is how are the management personnel chosen. Should they be elected or appointed? By whom? How often? Second, how secure should any management personnel's job be? Third, how much power should any management personnel's job have?

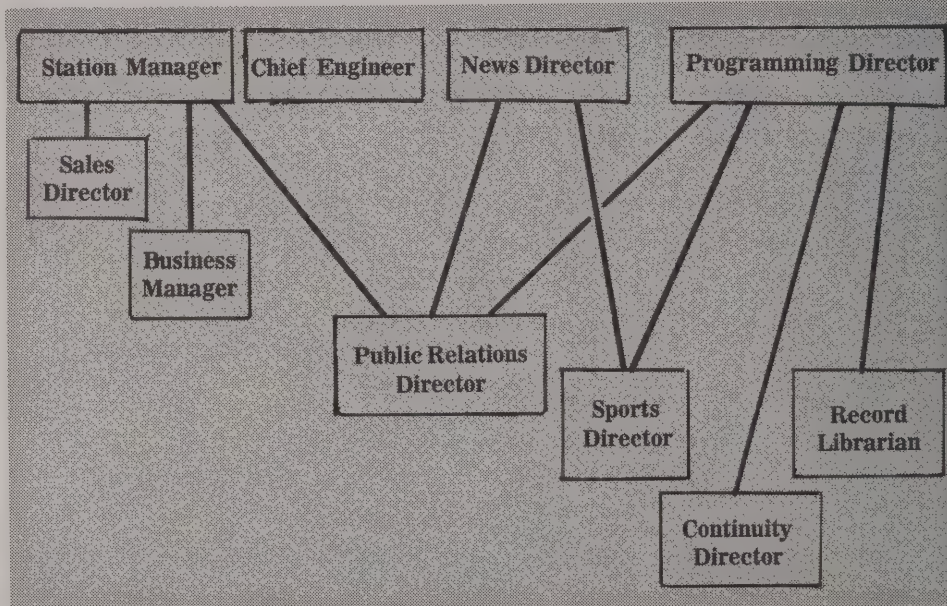
One way at looking at this problem is deciding how should management be set-up. My proposed set-up should be the following:

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MANAGING TODAY'S RADIO STATION By Jay Hoffer. A collection of critiques on the art, outlining principles evolved by the author during his 20 years as a broadcaster. Organized into three sections, the content encompasses management, programming, and sales. Part 1 considers two sides of a manager's environment—the personal and the impersonal—with comments on his many duties, from politics to personnel. Part 2 covers programming, primarily from the management viewpoint, although also of value to the program director and announcer. Part 3—Sales—offers help in finding and training salesmen, holding worthwhile sales meetings, setting rates, developing sales leads, etc.
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Order Form on Page 29

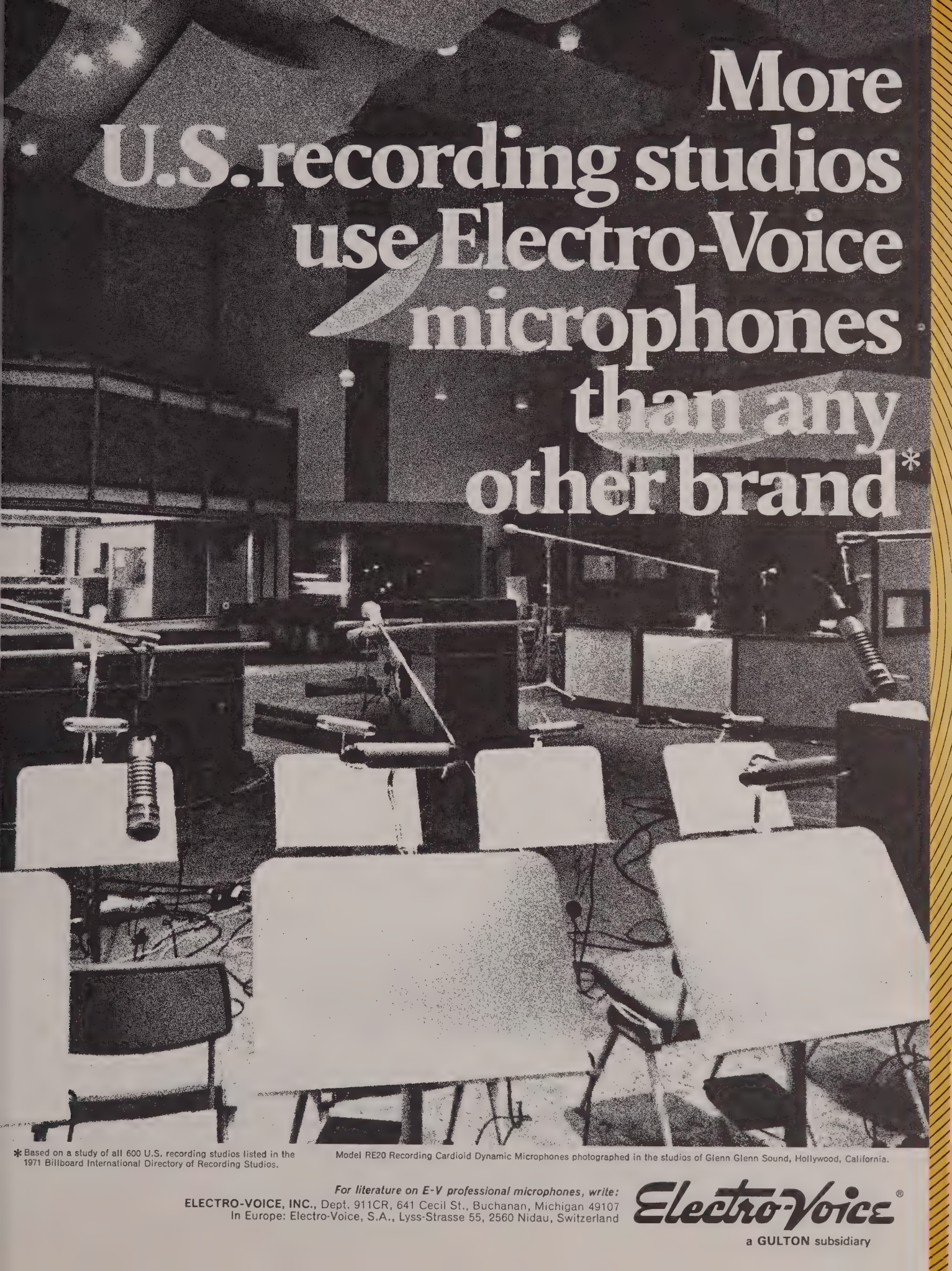


The above diagram shows that power is not in the hands of one individual, rather it is a collective leadership of power. The running of the station is in the hands of a minimum of 4 people's hands. Too many college stations give way too much power to the station manager, which imitates the set-up of many commercial operations. But what is forgotten by such imitations is that in the college radio situation, you're supposed to be learning as you work, while once you're put in charge of a commercial operation (as opposed to a college operation), you pretty-well know what's happening. How many college station managers can admit to being fully com-

petent when being appointed to such a position?

There's hardly a station manager who knows even half as much as the chief engineer. Most chief engineers are pretty good, or they exit quickly because they have to know how to fix something on the spot, and don't call "emergency meetings" to meet a technical problem, unless it is of monumental proportions. That's the way it should be. Why should the chief engineer be below everyone else? If there's an argument over what console should be purchased, how many times

(Continued on page 22)



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Reaction to FCC's Note of Inquiry Into Carrier-Current Radio

This past Spring, the Federal Communications Commission adopted a Notice of Inquiry and Proposed Rule Making, "...in an effort to ascertain current information with respect to low power radiation devices and carrier-current systems which operate pursuant to Part 15 of the Commission's Rules."

A questionnaire relating to carrier-current operations was sent out to the various stations in the country. The survey intended to discover various system's radiated field strength, power output of the

transmitters, means of distribution, and other pertinent data as related to the technical operation of a system.

Other areas of the inquiry delved into programming operations and financial matters of the stations.

The complete text of the Notice was printed in the April issue of JCR, along with the concurring statement of Commissioner Thomas Houser in which Commissioners Dean Burch, Chairman; Robett E. Lee, and Robert Wells joined. The dissenting opinion of Commissioner

Nicholas Johnson was also printed in its entirety.

Many stations responded to the questionnaire while others elected to ignore it. The following is the reply of KLC Radio, Lewis and Clark College, Portland, Oregon. The reply is in the form of a two-part editorial presented over the air by Station Manager Thomas R. Spitz.

The second reply is a letter to the FCC, written by George Schabes, General Manager of WCCR, City College of New York.

KLC RADIO EDITORIAL REPORT

This is the first in a two-part editorial statement which this station feels compelled to make in response to a Notice of Inquiry and Proposed Rulemaking recently adopted by the Federal Communications Commission. In that statement the seven-man Commission indicated an interest in studying, and further regulating, the operations of campus radio stations such as this one.

In an era of creeping federal influence such an inquiry is disturbing, for a review of broadcast law raises substantial doubt over the Commission's legal authority to regulate these stations in the fashion it obviously contemplates and raises further questions over the Commission's motives.

Our listeners are perhaps unaware of the distinction, but college radio stations generally fall into two categories: Licensed AM or FM broadcasters who radiate a signal to their campus and the surrounding communities, and Unlicensed

AM or FM carrier-current stations who use a closed-circuit system to radiate a signal directly into the electrical wiring of the college buildings. Because these carrier-current stations ARE limited to their campuses and do NOT provide a signal to the general public, their operations have never been regulated by the FCC other than to assure that their limited use of channel space generated no interference to other broadcasters.

And, therefore, the FCC's only interest in these stations has always consisted in establishing the maximum strength of the signal they could radiate without posing an interference hazard to other users of the radio spectrum.

In contrast to this purely technical interest in college radio, the FCC's recent notice, and the survey form which was sent to the college stations in response to it, deals with the program content of such stations in addition to the technical nature of their signal.

The Commission has solicited data including a proportional breakdown of all station programming in categories such as news, campus affairs, public affairs, and music, information concerning station affiliation with either commercial, or collegiate, radio networks, coverage of political issues, editorial statements,

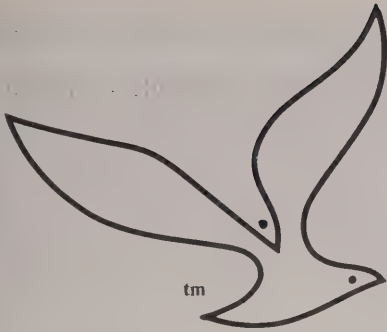
commercial sales practices, and questions relating to station financial affairs.

The Commission cites Section 301 of the Communications Act of 1934 as its authority for conducting this inquiry. In fact the relevant portion of this law reads: No person shall use or operate any apparatus for...the transmission of... signals by radio...within any State when the effects of such use extend beyond the borders of said State...except...with a license...granted under provisions of this Act.

In the case of a carrier-current station such as KLC its signal can legally be radiated no further than 190 feet from all college buildings. Clearly, it is NOT radiating a signal with effects which extend beyond the Oregon border. In the legal sense a carrier-current station cannot even be classified as "radio transmission". Rather it is a form of wired communication in which a signal is carried by lines rather than the atmosphere. Clearly, carrier-current radio does NOT fall under the FCC's licensing authority.

What is the reason behind the Commission's sudden interest in a 50-year old radio service such as carrier-current? In

(Continued on page 10)



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FCC DISPUTE

(Continued from page 8)

a blistering dissent to the action of the Commission majority, FCC Commissioner Nicholas Johnson stated that he was unable to reassure students who are bound to wonder "whether the real motivation behind the Commission's sudden interest in campus radio is related to a sudden desire to control a medium which is run by a generation of students who have become politically vocal, often in opposition to establishment wars and other values. Still quoting Commissioner Johnson...given recent cases of overzealous federal agencies gathering information on civilian activities I am most uphappy about the breath of this inquiry."

So is KLC Radio...And in Part Two of this editorial we shall set forth our interpretation of the Commission's recent action and the legal foundation upon which it rests.

Part 2

In Part One of this statement KLC expressed its concern over the Federal Communications Commission's recent adoption of a Notice of Inquiry and Proposed Rulemaking. In that Notice the Commission stated its intent to solicit information concerning the programming of college radio stations and perhaps impose certain regulatory controls over these stations.

Having reviewed the laws under which the FCC was created, it is our contention that Congress has not given the FCC the authority to regulate unlicensed carrier-current radio stations, such as this one, other than in the purely technical capacity of preventing signal interference.

Along with out-voted FCC Commissioner, Nicholas Johnson, KLC wonders whether the FCC's interest in college radio stems from the active political interest of college students and their use of radio to express their views.

One of the principal subjects of the FCC's inquiry is college radio networking—or the linking of one or more college stations for simultaneous transmission of centrally-produced programs. While few regular college radio networks exist, numerous ones sprang up during the moratorium of 1969 and the student strike of 1970.

The FCC has set out to secure information on college radio networks and has announced tentative plans to regulate their activities.

Whether the program content of such networks is good or bad really isn't the issue. What KLC questions is the FCC's legal authority to regulate either these networks or the unlicensed carrier-current stations which form them.

Here are the facts:

Unlike over-the-air AM and FM stations carrier-current radio stations such as KLC are unlicensed broadcast services over Congress has NOT given the Commission authority. KLC uses intra-state telephone circuits regulated by the Oregon State Public Utilities Commission, rather than inter-state federally regulated AT&T circuits. In fact our telephone circuits are legally classified as "loudspeaker channels" under both the FCC and PUC tariffs. In contrast the circuits used by licensed stations are classified as "broadcast lines". It is our contention that the Federal Communications Commission has NO authority over such wired carrier-current stations so long as they do not radiate beyond the limited distance which has been established as non-hazardous to other radio stations.

With regard to interstate network activities, the FCC has NEVER at any time possessed the authority to regulate interstate broadcasting networks, including the commercial networks such as ABC, NBC and CBS. The FCC's power has always been limited to regulating the networks by governing their affiliated stations. But since the Commission cannot legally regulate the stations which comprise college networks, it seems to have ventured on a fishing expedition in search of control of the stations themselves.

The Commission's authority to regulate broadcast communication was never granted because these media are influential. Newspapers are powerful—and also free from any government regulation. The FCC was originally established to license stations, assign their frequencies and generally provide for the orderly use of the radio spectrum. Yet the Commission now proposes to further regulate college radio because "...the scope of carrier-current systems...has steadily increased...reflecting a growing interest in such systems as important communication vehicles." To suggest that college stations require additional control because their influence is growing directly violates both the spirit and letter of

Congressional legislation which created the FCC.

KLC believes that unless, and until, the Federal Communications Commission receives Congressional authority to regulate the established commercial networks, it does not possess a mandate to regulate college radio networking. And we emphatically reject the suggestion that existing legislation confers upon the Commission the authority to review or regulate the program content of carrier-current radio stations.

KLC wonders whether there is any possible connection between the Commission's interest in college networking and development of such networks during the moratorium and Student Strike. And we are dismayed over the possible implications of the Commission's suddenly zealous, and extremely broad, inquiry into college radio.

We are forwarding a statement reflecting this concern to the Federal Communications Commission, Washington, D.C., 20554.

We invite those of you who share our anxiety to do the same.

WCCR LETTER

It was with great interest that I read your Notice of Inquiry and Proposed Rule Making concerning carrier current and low power systems. I fully understand the concern over potential applications of low power broadcasting (such as coupling a carrier current system with a CATV operation) which might violate the intent of part 15 of the Commission's Rules. But as a college broadcaster in a position of management, I fear the notice is an indication of a far deeper concern on the part of the commission, a concern based upon an unfamiliarity with the medium of college radio.

College radio, as an institution of great value to campus and community, has long been an area of neglect. In an effort to bridge this unfortunate information gap, let me take this opportunity to familiarize the commission with WCCR, its operation and its aims. Hopefully, through a view of our system, a clearer picture can be rendered of college radio in general.

In its sixteen year history, WCCR has maintained three major aims: to serve as a training ground and creative outlet for interested students, to keep the student

(Continued on page 11)

COMMISSION'S EFFORT

"....action which might cripple this vital institution...."

FCC DISPUTE

(Continued from page 10)

body entertained and informed, and to relate to the surrounding Harlem community in a way that is beneficial and prestigious to both our organization and the college as a whole.

It was clear at the outset that, since a college operation must have a large yearly personnel turnover, an effective set of training programs had to be established. We currently hold formal training sessions in the fields of announcing, engineering, and news reporting in addition to the more specialized areas of voice and diction, production techniques, and basic electronics. Once "on the air" there are numerous outlets for gaining broadcast experience. The programming schedule features music shows appealing to a wide variety of tastes, twelve newscasts daily and a daily 15-minute news wrap-up, and three hours per week of news and public affairs oriented programming. Off the air, the student can become familiar with the technique of tape editing and can exercise his talents in the production of spot and promotional announcements for various non-profit organizations. Many of our former staff members have graduated to positions of importance in the world of professional radio.

For the 21,000 City College students who are, in effect, sheltered from the outside for much of their school day, WCCR serves as an information disseminating agent. Utilizing the services of United Press International, we keep the students informed of national and international events while our own news staff covers campus and local activities. Our publicity department keeps the student body aware of cultural happenings in the city and on campus. And, we must not deemphasize the importance of musical entertainment to the student that often seems hermetically sealed within the walls of academe. The campus radio station relates directly and immediately to the needs of the student body, while maintaining professional standards of quality

With respect to the surrounding community, we regularly conduct tours and discussion sessions with groups of neighborhood children, most of disadvantaged backgrounds. With respect to the broader New York City community, several local stations, such as WOR-FM and WNYE-FM recognizing the value and quality of our air product, have extended modest amounts of time, offering to give wider exposure to our efforts. In these ways, and in many others, WCCR has benefitted people outside of the campus and has admirably represented both the City College and the state of the art of college broadcasting.

The success of WCCR and of other college stations is even more remarkable when one looks behind the scenes of the operation. For instance, WCCR is staffed by some 80 students, all non-salaried and each giving what time he can (sometimes as much as 50 hours per week). Funding is always a problem; without commercial revenue, relying entirely upon the inadequate funding of student government, it is often difficult to function as efficiently as one might hope. But despite this tremendous fiscal handicap, college radio is thriving.

The management of a college station is an enormous responsibility. To accomplish successfully the objectives I have outlined, while retaining control over business and personnel situations within a university framework, mature, intelligent, student leadership must be supplied. In addition to student leadership, there must be administrative supervision as well. I feel that WCCR's success as a limited range broadcast facility, its close ties with both students and administration, and its sense of responsibility and commitment are representative of college stations throughout the nation.

It is my profoundest hope that the commission's Notice of Inquiry and Proposed Rule Making is merely an effort to secure information about low power systems in order to prevent the unrestricted expansion of college radio and not a portent of future action which might cripple this vital institution and terminate its history of decades of

valuable service.

Thank you for your time and consideration.

Sincerely,

GEORGE SCHABES

General Manager, WCCR

WCCR welcomes other view points and opinions concerning this matter. Selected views will be printed as space permits.

THE PERSUASIVE DOCUMENT

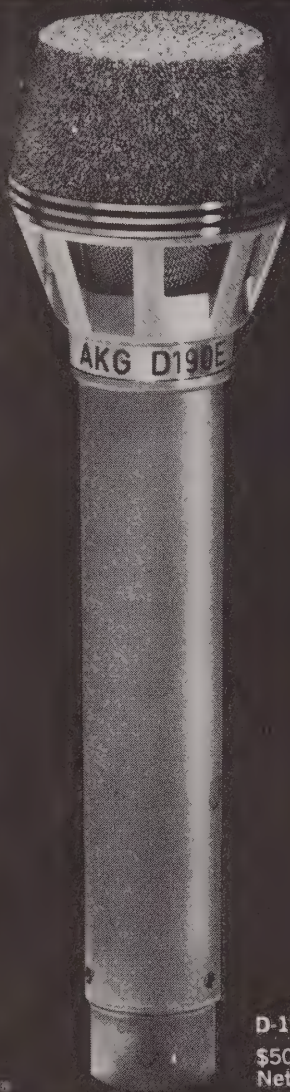
(Continued from page 4)

deliberately into a pattern of emotional presentation so that the audience motives will be aroused and their reactions given explicit direction. Suspense and conflict are added to the script when the central thought comes into conflict with antagonistic thoughts. The resultant drama demands the listeners' attention.

Even the use of the narrator can be persuasively arranged. Most documentaries present a central thought by speaking directly to the viewer through a narrator. He can stress the idea, he can connect the episodes, he can interpret facts. Proper scripting means juxtaposing the narrator's remarks to actuality or expert testimony or biased comment and, or, opinion to heighten interest. This especially is true if the narrator is made to appear to be concerned in an intimate way.

Finally, and very importantly, proper scripting means the program must have as its purpose to comment upon a socially significant problem. The persuasive documentary is interpretative in nature, not of the basic facts, but with inferences drawn from the facts. Scripts must juxtapose central ideas against problems, with the purpose of illuminating a solution to the problems. When the non-persuasive documentary may have as legitimate ends insights, deeper understandings, or new slants on the original problem, the persuasive documentary's main purpose must be to comment upon the problem and present a solution. It is not enough to clarify the issue or inform the audience!

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ENGINEERING

By
Ludwell Sibley
Engineering Editor

Welcome!....And Other Items—

College radio is back on the air for another year. Hopefully the initial push to get the studio gear and transmitters back into operation at your station is now over, and the new control board operators are trained. This is a good opportunity to welcome newcomers to the college radio engineering fraternity, whether just entering school or simply trying out a new activity. Working in this field is a highly rewarding way to pick up new experience. There's still a little romance in putting a transmitter on the air or making a master tape. At the same time, there are dangers of lost grade points and academic disaster if radio captures too much of one's time!

The IBS engineering program for the year is taking shape. It is primarily oriented toward the student-managed station, with special emphasis on carrier-current engineering because this is the area of greatest interest. FM stations are in a relatively good position because their technical practices are directly adaptable from commercial FM. The 1971 issue of **Carrier-Current System Design** is available from Member Services or Engineering in case your station doesn't have one already. Updating of the engineering section of the **Master Handbook** will take place, continuing the work begun by George Eustis in 1963-68.

At the same time, all these activities will be much more effective if individual stations contribute. Any kind of feedback is valuable: suggestions, questions, problems, and even complete articles for the **Journal of College Radio**. There is need for reports of technical discoveries made by individual stations—if yours has found a solution to a technical problem, the chances are that it will be useful on other campuses. IBS has always been basically a membership cooperative in this respect. The address to contact is Box 2010, Stanford CA 94305 (415-321-2468 evenings).

A new plan for IBS Engineering is to maintain a file of technical information on broadcast equipment, particularly the older items whose literature is hard to get. Contributions—either the manuals themselves or Xerox copies—will be appreciated. Material is presently available for the following equipment (basic schematics only, unless indicated by bold type :

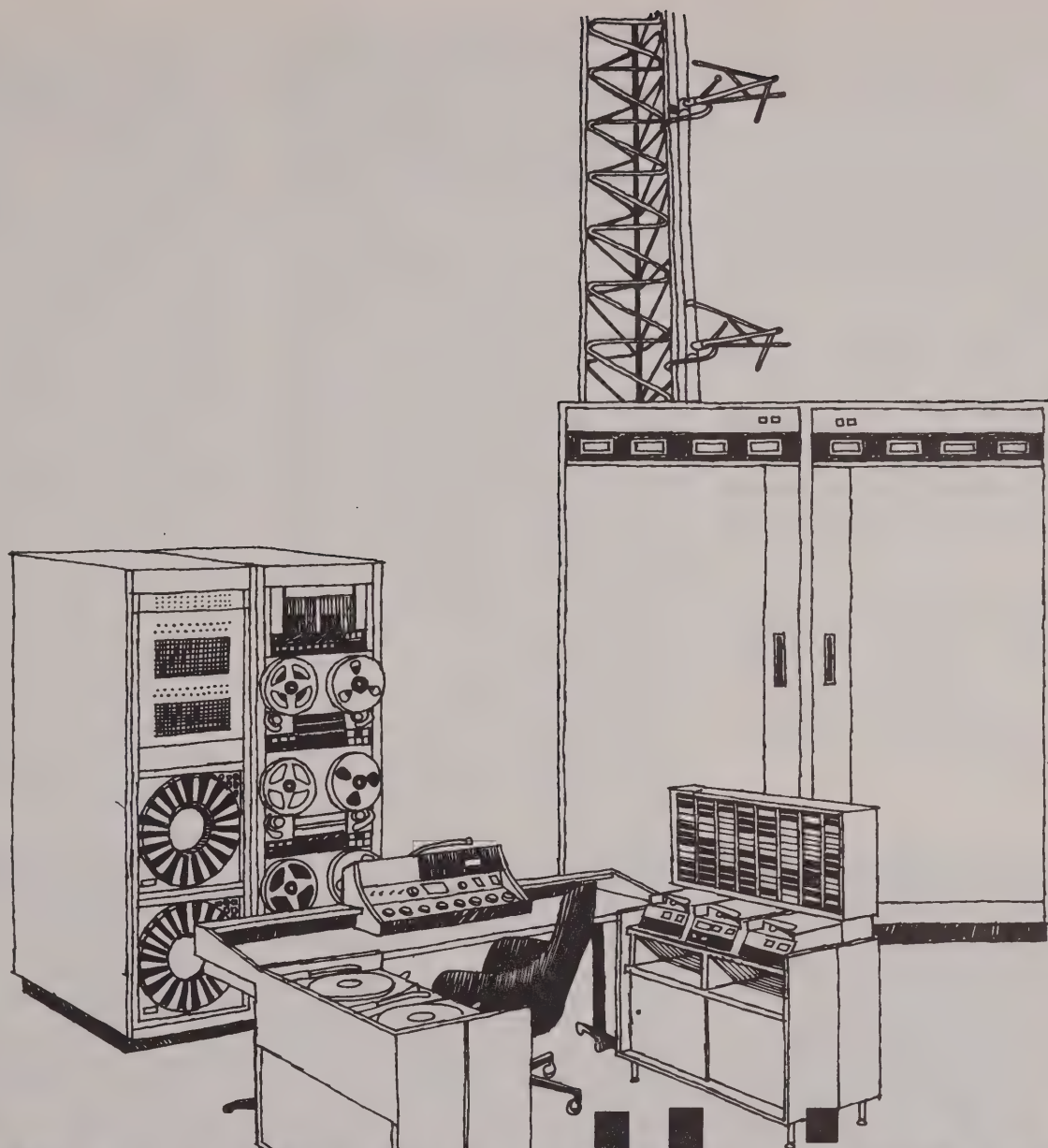
RCA BA-6A Limiter
RCA MI-11301-B Power supply
(For 76-B Console)
Gates MO-4072 Recorder Switching Panel
Gates 52-CS Studioette
Gates SA-38A Limiter
Gates SA-118 Line Equalizer
Gates SA-134 Amplifier
Gates CB-65 Remote Amplifier
Magnecord PT63-AHX Tape Transport
Magnecord PT63-JX Amplifier (military) AN-TNH-2A Tape Recorder
Wollensak T-1500 Tape Recorder
Uher 4000 Report-L Tape Recorder (military) AM-864-U Limiter

In case individual stations don't have full files of the **Journal of College Radio** and its predecessor, **College Radio**, three collections of engineering articles from the 1965-1971 issues are now available from Engineering. One covers studio, one carrier-current, and one miscellaneous topics. They are available to IBS member stations on request. Please specify the one(s) that you need.

To focus more fully on current technical problems, an all-engineering conference is scheduled for the San Francisco Bay area for Saturday, 16 October. We expect to have some highly experienced people in attendance, so all can benefit. All Western Region stations will receive announcements of the time, location, and program.

We are interested in finding out if carrier-current stations need a source of ferrite toroid cores suitable for use in the broadcast band. Cores of unspecified material are advertised in such amateur magazines as **CQ** and **QST**. These may or may not be of the right composition to be efficient in the carrier-current frequency range. Others, of known material, appear in the Harrison Electronics industrial catalog. If it would be helpful, IBS could

(Continued on page 14)



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(Continued from page 12)

buy a hundred or so cores to get the quantity price break and pass them on to member stations at cost, roughly \$1.60 apiece. If your station is interested, let us know.

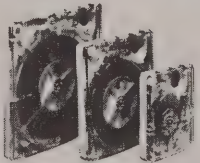
The discussion in the December 1970 engineering column on FCC operator licenses states that a First Class ticket is necessary to work on a 10-watt Class D transmitter. This information is in error: a Second Phone will suffice. See Section 63.00R of the Master Handbook for further details.

A California high school group seeking to build an FM station is asking for donations of all types of equipment. Anyone with spare gear to contribute can contact Steve Sampayan, Associated Student Body, North Salinas High School, 55 Kip Drive, Salinas CA 93901.



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All lengths and sizes stocked — fast service — highest quality

Series	Type	Time at 7 1/2 ips	Unit Price
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300	40 sec. (25')	2.05	
300	70 sec. (44')	2.10	
300	100 sec. (63')	2.25	
300	140 sec. (88')	2.35	
300	3 1/2 min. (132')	2.50	
300	5 1/2 min. (207')	2.90	
300	8 1/2 min. (320')	3.70	
300	10 1/2 min. (394')	3.90	
300	empty cart.	1.60	
600	16 min. (600')	6.25	
600	empty cart.	2.80	
1200	31 min. (1163')	10.45	

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ANY ASSORTMENT—NO MINIMUM ORDER

BROADCAST ELECTRONICS, INC.
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Last year we talked about the scarcity of modulator tubes for the obsolete General Electric Phasitron FM exciter. There are still a few of these units in college radio hands, but spares are getting harder to find. The Phasitron tube cost between \$200 and \$300 even when it was readily obtainable. We now know of two stations interested in finding spares. If your station has an extra tube, or needs one, please contact us. We'll try to get the "haves" in contact with the "have-nots".

It appears that the estimated loss values for RG-174 given in Carrier-Current System Design were rather optimistic, being 0.59 dB per hundred feet at 500 kHz and 0.78 dB at 1000 kHz. Based on later information, more accurate values would be 1.5 and 1.9 dB respectively. Losses this high would take RG-174 out of the "useful" class except for very minor lengths. Its mechanical frailty made it rather dubious anyway.

Station Security

In student-run stations the responsibility for keeping the station secure from intruders falls upon the engineering department. This is fairly natural because most of the mechanical talent is concentrated in the engineering staff.

Collete stations are generally located in older quarters where the lock system was adequate for its original use. But the radio operation introduces a full collection of tape recorders, tools, records, and tapes—all high pilferage items—which the original locks cannot protect adequately. Stations in old or new buildings have had fears of being "liberated" during demonstrations. FM licensees in particular have a strong interest in controlling access to the premises.

Some existing lock arrangements are good only for keeping the honest people; anyone with a bit of deviousness can get right in. Certain older locks are a pushover for a little manipulation with a piece of wire or plastic. A generally attainable goal is to keep out the semiskilled burglar or campus lock enthusiast, and to slow down the real professional.

The effectiveness of the locks themselves is highly variable. The key-in-the-know type isn't good for much if it lacks a trigger bolt, the small secondary bolt which prevents opening with a piece of plastic, or if the door jamb is so loose that the trigger bolt can't do its job. Nor do the usual locks withstand brute physical assault: break the knob off and the door can be opened. Most ordinary locks with their short bolts don't extend far enough

into the door jamb to resist a pry attack. "Heavy-duty" versions of key-in-the-knob locks are only somewhat better.

Considerable extra security is available by changing to a "mortise" lock—a lock cylinder a few inches above the knob. It inserts a really heavy bolt a good distance (up to an inch) into the door jamb. These are a real improvement, but will require a continuing reminder campaign to get people to lock the door fully with the key rather than with just the knob lock. Another possibility is to add a secondary lock of the vertical-bolt type elsewhere on the door. These are quite secure against the usual problem of physical assault, if not against picking, but getting the station staff to use both keys will be a problem.

Fancy locks are no protection if the door itself isn't secure—if it's the weak hollow-core type, or if the jamb is weak or springy. Exposed hinge pins are a real risk. Certain ingenious tricks involving hidden setscrews covered with thick paint will help them. The rear doors to the station are at least as critical to protect as the front. Outside doorways need fulltime illumination at night.

Lockpicking is a glamorous but relatively minor threat. Four-pin padlocks are trivial to pick; five-, six-, and seven-pin locks are progressively more difficult but not insurmountable to a skilled pick artist. The mastering arrangements common in building complexes (individual room key—floor master—building master—grand master) compromise security by making all the locks more pickable. Because of this FM transmitter rooms and control locations should be rekeyed so that only an individual room key and the grand master can open them.

Depending on the degree of closeness within the staff, security measures may be worth while within the station. Combination padlocks aren't very effective. The combination gets passed around in no time and becomes common knowledge. Keyed padlocks are a better idea. One station controls access with seven-pin padlocks that take the same blank as the door locks, and a complex mastering plan. The keys are stamped "DO NOT DUPLICATE", are on a hard-to-get blank, and are individually signed out with a cash deposit. This takes a fair amount of administrative effort, but the same station had previously lost \$2,500 worth of recorders in three burglaries.

(Continued on page 26)

McCLOSKEY REPORT

(Continued from page 3)

Exact wording has not been drawn up, but the proposed intention is to impose these rules on interconnected carrier current systems.

As this is written, the commission had not released details of the response to the survey or other comments and material filed with the commission in relation to the proposal.

A number of developments brought the carrier current stations back to the attention of the Commission, which has not proposed any new rules for their operation since 1964.

BACKGROUND

In October of 1969, WJC at Juniata College requested permission to allow a CATV system to pick up their signal and distribute it off campus to the general public. In a letter to WJC, the commission imposed requirements similar to those

they now might place on all carrier current stations.

WFIB, at the University of Cincinnati, also in October of 1969, proposed feeding its signal to other college radio systems around the country, establishing, in effect, a network.

DISSENT

In a sharply worded dissent, Commissioner Nicholas Johnson questioned what he called "the launching of this general investigation of student-operated campus carrier radio stations."

He wondered out loud if the search for information was not sparked by reports of various college networks spawned to report on various anti-war protest actions.

There was also a report in one of the Sunday supplements which explained how carrier current radio was being set up in the ghettos of some large cities and used as a guerilla underground radio.

This, of course, is workable as is the set up at the airport in Los Angeles. Drivers entering the traffic mess at the airport will be able to set their car radios to an AM frequency being used by the airport

authorities to broadcast constant traffic reports.

As is the case with most carrier current operations, these broadcasts would be heard only on radios within the confines of the property, in this case, the airport.

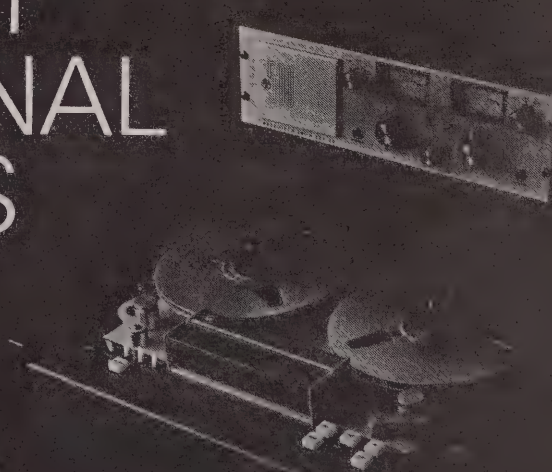
COMMENTS

As the effort toward rule making continues, all college broadcasters should make use of the opportunity to file comments with the Commission. For those using the college station as a training ground for future professional broadcast employment, this is an excellent opportunity to learn about the workings of the processes used by the FCC in their dealings with stations.

IBS

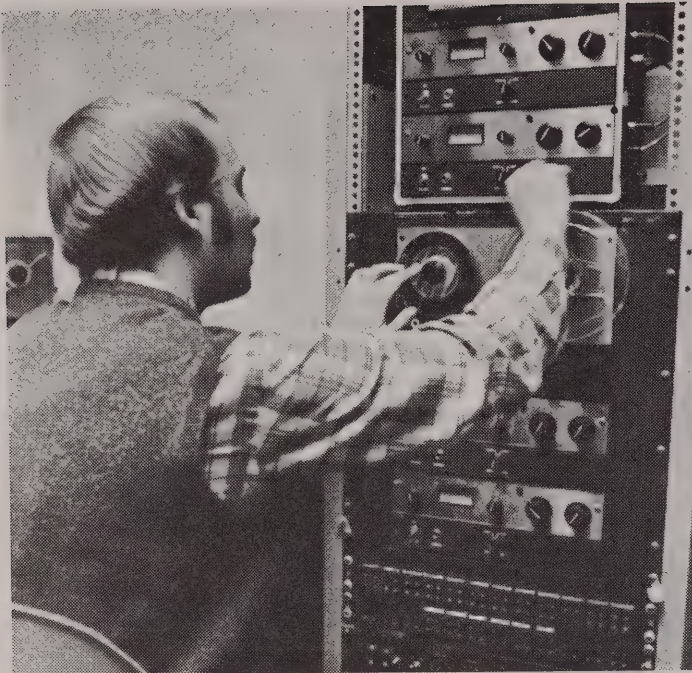
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ANNOUNCER Jon Pray in production room.



NEWSCASTER Dick Bostrom reading news in news booth.

BLOCK PROGRAMMING WORKS

Mark Radtke
KCSU-FM
Colorado State University

The action is on campus—and college radio wants to be heard as the voice of college action. Colorado's largest radio facility, KCSU-FM at Colorado State University, discovered how to capture a piece of the market through their own brand of block programming.

After a previously unsuccessful attempt at beginning a campus radio station at CSU, a few interested engineering students revived the idea and in 1960 set out with an original allotment of \$1,000 to put KCSU on the air. The dream was realized in 1964 when the station signed on for the first time. The station was first powered by a used Gates 250 watt transmitter and a Gates control board.

Funds for improvements were slow in coming in those first two years of operation. The station, being student owned and operated, had to go to the student government Board of Communications for money. KCSU showed determination along with potential which impressed the Board. In late 1967 the Board approved \$15,000 in capital improvement expenditures, resulting in a

concentration of some of the finest radio broadcast and recording equipment in Colorado. This, and subsequent appropriations, led the station to jump to 2,100 watts and to install a Gates "President" console, among other pieces of equipment.

The station has now reached a point of continuity which makes it a dependable sound and an able competitor for a share of the Fort Collins listening market.

According to a survey conducted last spring, KCSU could claim only an average of seven per cent of the student listeners. Bud Elliot, former General Manager, began the search to find out why KCSU was turning people off. A long look was taken at the programming format used last year. It was spot programming with a half hour of music wedged in between educational shows. Elliot conferred with Program Director Mark Olson and called for suggestions from the staff. After kicking the idea around for much of the summer, Elliot and Olson decided to hit the listeners with a new sound for KCSU in the fall.

Consideration was given to the facts that the community and the university demand in-depth reporting of local events, such as speakers (of which the university serves

as a horn of plenty), news events, CSU sports events, community affairs, along with the best in educational and informational broadcasting. The music would also have to be altered to meet the needs of the widely varied audience of university students and young adults in Fort Collins and Northern Colorado.

The following formula was devised for this fall's format. KCSU was to follow a modified style of block programming, tailored to fit its listening public. It was also decided to embark on an ambitious public relations campaign—but first things first.

KCSU has an eighteen hour broadcast day, from seven in the morning to one at night. The day was split into five "blocks". The first block starts the day with music, as the program planners felt music was the best way to capture listeners in the morning yet hold them throughout the day. Contemporary tempo is used that is broken only by Al Capp's comment and Coffee Conversation, a daily half hour interview program in which station personnel are joined by a guest of interest from either the community or the campus.

The early afternoon segment was chosen to contain educational materials aimed at the area public schools. The National



NEWS DIRECTOR Jim Skinner compiling news round-up.



GENERAL MANAGER Mark Radtke doing board shift.

FOR EDUCATIONAL FM

Educational Radio Network, the Canadian Broadcasting Corp., Chevron Oil, and many others provide excellent programming for this slot. Outstanding Figures in World History, Exploration of the Earth, The American Heritage Series. Aspects of Canada along with lighter programs such as the RUm Runners and the BBC's Goon Show combine to be not only educational to schoolchildren, but also entertaining.

The late afternoon block which runs from roughly 2:30 to 5:00, picks up the music tempo slightly with the introduction of some lighter rock and jazz. Top 40 and some contemporary still dominate the turntables, however. This hits everything from Sergio Mendes to the Paul Horn Quintet, Gordon Lightfoot and the Carpenters to Bread. This is broken by the 5 o'clock news roundup, the news departments half hour flagship, which introduces the early evening segment.

This block focuses upon educational and informational material aimed at the University student, faculty and the community. Here is where internally produced documentaries are aired. An example is Project Understanding: A Look at the Black Student Alliance. This series looks at a timely and relevant

subject facing everyone in our community. In this segment the station also airs such canned material as Sexuality; A Search for Perspective, Urban Confrontation, Gangbusters, The Eisenhower Years and Soundstage 90.

The college audience is basically a night time audience, so KCSU caters to the musical tastes of the college students during the musical wrap-up segment, which runs from roughly 8 to 1 a.m. The music in the late evening is as varied as the audience it serves. The sounds range from Top 40 to Jazz to Folk to Underground. Santana blends surprisingly well with Baez, and Miles Davis with Grand Funk. The music mix seems to be working well as announcers were asked to record the number of requests they received during a two week period last fall, and the final tally showed requests running an average of 10 to 1 over last spring.

Along with the programming changes, an ambitious public relations program was started. The first move in the campaign was the issuing of an attractive programming guide which lists not only what is on when, but also a summary of the show to be aired on a specific date. The

station also printed bold posters which proclaim the station's role in serving the community with the best coverage in news (which is a whole different story), sports, educational programming as well as the best in music. These things along with many tours of the studios and regular PR letters promoting upcoming worthwhile shows to local print media and the CSU Office of Information and Public Services.

Together the efforts in programming as well as public relations have built KCSU into a respected contender for the Northern Colorado listener. In a survey just completed this fall KCSU jumped to an average of 15 per cent of the total radio audience. Outstanding for a college educational station? You bet! The survey shows that out of 100 polled 53 listen to KCSU sometime during the week with an average of 30 minutes per day.

In this market block programming gives the listener what he wants and when he wants it. Educational and informational programming that is interesting, stimulating, and informative is provided. KCSU has also had success with its music mix which is refreshing not repetitious. This can be matched by no other station in the area giving KCSU the unique sound which can draw a larger audience.

MUSIC INDUSTRY DEPARTMENT

SINGLES

BEGINNINGS-COLOR MY WORLD
 DRAGGIN' THE LINE
 DON'T PULL YOUR LOVE
 IF YOU REALLY LOVE ME
 I JUST WANT TO CELEBRATE
 I WOKE UP IN LOVE THIS MORNING
 LIAR
 LOVE THE ONE YOU'RE WITH
 MERCY, MERCY ME
 MIGHTY CLOUDS OF JOY
 MR. BIG STUFF
 NEVER ENDING SONG OF LOVE
 RAIN DANCE
 RIDERS ON THE STORM
 RINGS
 SINGS
 SMILING FACES SOMETIMES
 SOONER OR LATER
 TAKE ME HOME, COUNTRY ROADS
 YOU'VE GOT A GOOD FRIEND

CHICAGO
 TOMMY JAMES
 HAMILTON, FRANK & REYNOLDS
 STEVIE WONDER
 RARE EARTH
 PARTIDGE FAMILY
 THREE DOG NIGHT
 ISLEY BROTHERS
 MARVIN GAYE
 B. J. THOMAS
 JEAN KNIGHT
 DELANEY & BONNIE & FRIENDS
 GUESS WHO
 DOORS
 CYMARRON
 FIVE MAN ELECTRICAL BAND
 UNDISPUTED TRUTH
 GRASS ROOTS
 JOHN DENVER
 JAMES TAYLOR

COLUMBIA
 ROULETTE
 DUNHILL
 TAMIA
 MOTOWN
 BELL
 DUNHILL
 BUDDAH
 MOTOWN
 SCEPTER
 STAX
 ATCO
 RCA
 ELEKTRA
 ENTRANCE
 MGM
 MOTOWN
 DUNHILL
 RCA
 WARNER BROS.

BREAKTS



*MIGHTY CLOUDS OF JOY
 B. J. THOMAS — WLUC
 Loyola University of Chicago

*HYMN
 JETHRO TULL — WTGR
 Memphis State University

*DROVE OLD DIXIE DOWN
 JOAN BAEZ — KSMU
 University of Texas, Dallas, Texas

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 CARPENTERS
 TAPESTRY
 EPIC
 CHICAGO, ILL
 FOUR WAY STREET
 TARKUS
 BEST OF THE GUESS WHO
 LIVE AT CARNEGIE HALL
 MUD SLIDE SLIM AND THE BLUE HORIZON
 JESUS CHRIST, SUPERSTAR
 MAMMA
 RAM
 INDIAN RESERVATION
 STICKY FINGERS
 STEVEN STILLS II
 WHO'S NEXT
 YES ALBUM

ARETHA FRANKLIN
 BS & T
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 STEVEN STILLS
 WHO
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ATLANTIC
 COLUMBIA
 A & M
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every good boy deserves favour



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The Album cover tells the story of the content. The unnatural scene combined with the far reaching sound of the Moody blues makes this one of the groups best yet.

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(Deep Purple)

This Album will get anyone up for a heavyrock sound. The powerful drive of the fireballs provides a deep and far reaching sound.



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This easy rock is proof of the natural success that is in store for this group. The easy moving sound provides easy listening with a heart of soul.

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DISC NOTES



It has been over a dozen years since the formation of the "Blue Velvet." The members, now the CCR, have come a long way and from a look at past success will continue to succeed. The year 1967 was important to the music world and the month of December was important to four young musicians. This was the birth of the Creedence Clearwater Revival. Founded by John Fogerty, the CCR has reworked the entire music structure. They produced their first album in January of 1969. This earned them a gold record with sales in excess of one million. "Proud Mary" and "Born on a Bayou" brought in the first gold single followed in April by "Bad Moon Rising." By the end of 1969 CCR had earned four gold singles and three platinum album awards.

By January of 1970 CCR had the fifth gold single in their pocket and were packing their bags for their first European tour. At the end of 1970 CCR had increased their gold supply from four to seven gold singles. Their list of awards seems almost endless.

Every break possible was presented to this group until February of 1971. Tom Fogerty left and hit the road in hopes of making it on his own. John, Stu and Doug did not want to take the solo route and did not want to join a new group so they carried on in the CCR tradition. With sales hitting the 100 million mark the effect of Tom's absence seems to be affecting the group as much as a broken guitar pick.

In July of this year CCR left for another major U.S. tour. The single "Sweet Hitch-Hitcher" which was released late in July has already reached the top 20 spot on all of the charts and has promised to produce the 9th gold single for this outstanding group.

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THE WLTI EXPERIENCE



Martin A. Patt

Martin A. Patt
Assistant Professor
Lowell Technological Institute

Mr. Patt is an assistant professor in the Dept. of Electrical Engineering at the Lowell Technological Institute and officially responsible for the operation of WLTI(FM). Born in Medford, Massachusetts, Prof. Patt did his undergraduate work at Northeastern University and his graduate work at the Massachusetts Institute of Technology. He has recently published a textbook on Probability Theory for engineers.

WLTI(FM) is a noncommercial, educational radio station located on the campus of the Lowell Technological Institute in Lowell, Massachusetts. These days we call ourself a public broadcast facility even though we are not quite certain just what the phrase public broadcast implies.

It seems rather strange to be making a statement of this sort, for only a year ago, WLTI had very little interest in involving itself in community affairs. Nevertheless, much has happened in the past year. To be sure, it has been a difficult transition period for everybody concerned. Just a year ago, WLTI was typical of many FM college radio stations. It operated on a power of 10 watts with an omnidirectional antenna. Its signal reached out ten miles in any direction with a potential audience of over 100,000 people.

Like most other FM college radio stations, WLTI began as a carrier current operation, servicing the college dormitories. Through the hard work of many individuals, most of whom were students, an FM transmitter was put together and a station license was sought. The switch from carrier current to FM broadcast produced little change in method of operation, other than to spur the interest of

many who otherwise would not have participated. Fortunately, some of those who were attracted to the FM facility were rather talented, both as announcers and as technicians. Without these few people with both talent and imagination, further progress and development of the facility never would have occurred, but that is another story.

Progress did occur, and WLTI soon found itself with a brand new suite of studios in a new library building. In anticipation of this development, a construction permit was obtained to increase power to a kilowatt, stereo. Yes, progress did occur, but not without problems. Suddenly, a few people began to ask: "What are we to do with this new quarter of a million dollar facility? Are we to continue to operate it for the training of air-personnel and the entertainment of the students? How might the facility best be used?"

To find answers to these questions, a rather old-fashioned learning technique was used. A course was offered on the campus of Lowell Tech. It was offered for three credits in the second semester of the past school year. Its sole purpose was to uncover the answers to a few philosophical questions connected with the

operation of a licensed educational broadcast facility.

Since Lowell Tech is situated within the Greater Boston radio market, a very straightforward technique could be adopted for finding these answers. Key personnel from a wide assortment of stations were invited to appear as guest lecturers. News directors, program directors, vice presidents, and disc jockeys came to talk. The atmosphere was always rather informal and pleasant. Commercial AM, FM, TV, and educational stations were represented. A few community leaders participated as well.

It is interesting to note that the class was given essentially the same message by each guest, but from different points of view. We were told that a radio station, for that matter, any communications medium, has a fundamental responsibility to serve the community in which it resides. Setting aside for a moment the special case of a college station in a true college town, it appears that many FM college radio stations which program primarily for the students of the college are not properly fulfilling their intended mission. At WLTi a broader definition of community was selected. We chose to define our community as the City of Lowell and the surrounding towns.

This was not an easy decision to make, and it was particularly disturbing to many who discovered that the work involved in programming for the larger community is considerable. It is always easier to program for people like oneself than to program for listeners in a different age group with different interests. Nevertheless the decision was made, and the program manager (a student) made a start toward broad community programming. He did not find it easy to change a group of forty high-spirited individuals who, for the past few years, have been learning to program in a more limited way.

The change had to be small at first. To achieve a new direction, a children's program was originated. This program ran daily for one hour between 10 A.M. and 11 A.M. A telephone-talk show directed to housewives was run in the late morning from 11 A.M. to Noon. The usual subjects of conversation turned out to be gardening, cooking, and local gossip.

Middle of the road music and light rock occupied the early afternoon hours, followed by an hour of classical music early in the evening (6 to 7 P.M.). Educational tapes were always played twice a day (1 to 2 P.M. and 5 to 6 P.M.).

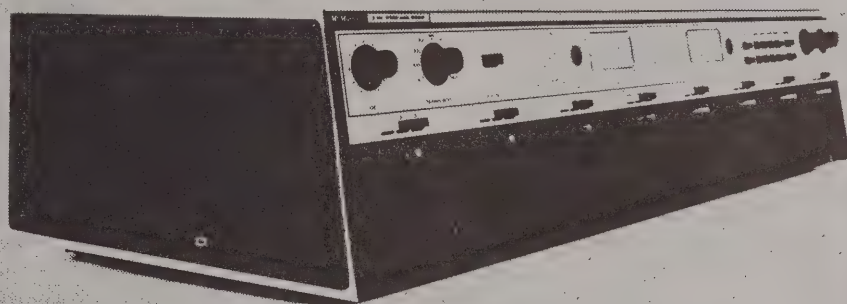
Often these tapes were produced by WLTi staff. If original material was not available, NAEB tapes were used. The evening hours were given over to rock music. Occasionally a special production such as an interview show, sporting event, ect. would be broadcast in the evening.

WLTi has taken the first step toward community involvement, and a community image is slowly being created. It is our hope that in a few years we will have drawn a sufficiently large audience to enable us to effectively deal with some

rather pressing social and environmental problems. We know that image-building is a slow process. It will take years before the local listening community will identify with our station.

Nevertheless, we call WLTi a public broadcast station. This is not for what little we are doing. Rather, it is because of the direction that we have taken. We had to make a choice; to entertain the dormitories, or to begin to do something about some rather pressing social issues. We chose the latter.

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College Students Program for Commercial Station

By Lynne S. Gross

The students of the Long Beach City College radio-TV classes recently aired eighteen fifteen-minute programs over KFOX, a local country-western station. The programs served a three-fold purpose. They were good experience and air credit for the students, they served as public relations for the college, and they helped fulfill KFOX's public service responsibilities.

Each radio production student was assigned to produce a program dealing with some aspect of the college. Some of the subjects selected were the forensics

program, the speed reading program, the college recreation association, the minority group relations classes, and the learning center.

The radio students contacted faculty members and or, students involved with the activity and put together the fifteen-minute programs. In most instances they involved a combination of remote material and in-studio recording.

There was a great deal of learning involved in producing these programs. Some students tried to make their programs too elaborate by involving too many people. They then had difficulty assembling everyone to do the taping.

Others produced for themselves gigantic editing jobs with consumed time far beyond that usually required for a class. In the process they developed many of their own tricks for recording material so it could be edited quickly.

Others ran upon undynamic talent and had to do some post production and edit it in to pep up the show.

Many had variances in recording levels which they had to adjust when making the final master tape.

The programs, overall, reflected well on the college and enabled people in the community to learn more about the programs at their local college.

SUCCESSFUL COLLEGE STATION MANAGEMENT

(Continued from page 6)

does the chief engineer win? While the chief engineer may know the good and bad points of each console under consideration, the non-technical management" may not like certain consoles because "it doesn't look nice," "no one likes the district sales manager," "their company took us out to lunch," or, the worse remark, "I don't like - 's console. I don't know why, I just don't like it."

How many times is the news director under the program director? Too many times! What happens is the news director wants to present an indepth news show and the program director doesn't want it or doesn't like the idea? Most of the time both the news director and the program director argue it out and then, when no settlement is reached, both run to the station manager, and someone will be

most upset. Under my proposed set-up the program director and news director will have the same relative power. Both would be able to talk-over their problem with others on the executive management level and get different opinions. One answer to such a disagreement between the program director and the news director is to establish a procedure that any special event shows which the news director wants aired, must be aired, with the actual programming of the show by the program director. Why should the program director be in the position of deciding what is newsworthy? Also, I'm sure many stations have their own policy in this matter which meets their needs just as well, if not better. The above is a suggestion that has worked well in a number of stations.

The person who has the most to do with the day to day operation of the station is the program director. It is only right therefore that day to day operations be

placed under him, such as continuity director, record librarian, in addition to other daily activities which require special personnel. The sports director, according to my diagram, is under both the program director and the news director because many of his operations fall into both programming and news.

Sales managers too often are under the programming departments which makes for sales fitting into the slot that programming has provided. Rather, under my diagram, sales is under the station manager so that the sales manager, in conjunction with the business manager, can plan effectively. What happens if more revenue is needed? If sales were under the programming department, higher rates would probably be the answer. But, would accounts pay higher rates? Or, should more accounts be secured at the present rates? More accounts however, mean

(Continued on page 24)

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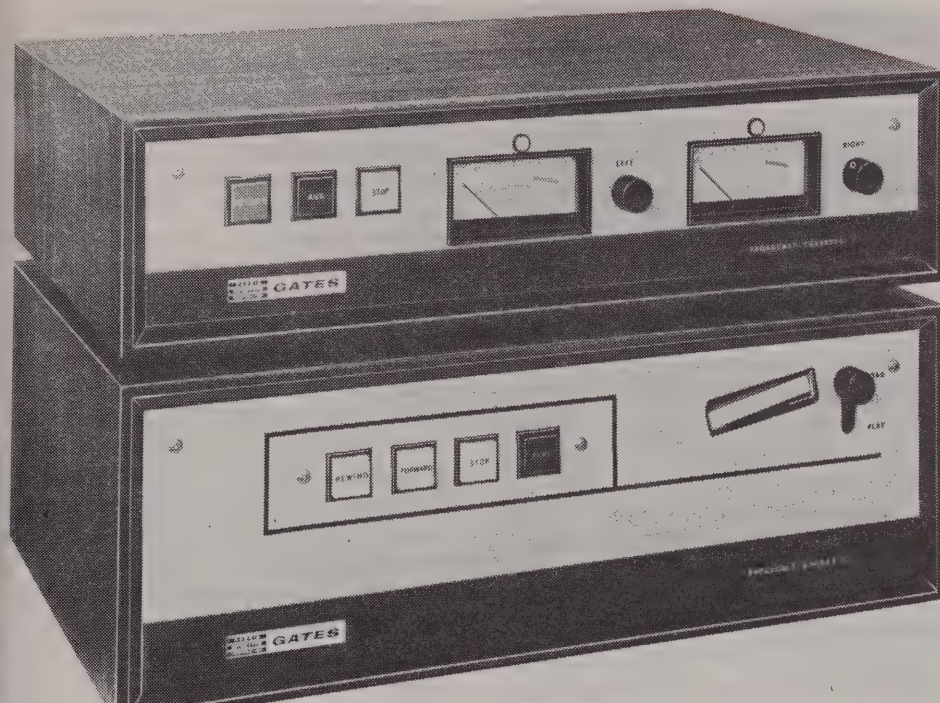
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NEW CASSETTE SYSTEM FROM GATES

The first professional cassette system designed specifically for the broadcasting industry has recently been introduced by Gates, a division of Harris-Intertype Corporation.

The many advantages and important features of the Gates' Broadcast Cassette Playback and Recorder system herald a new era of convenience for broadcasters.

The Cassette playback and recorder has features that will improve station efficiency:

- 60 minutes of broadcast material on one small tape.
- 100 individual items can be recorded on a single cassette.
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- one message may be erased without disturbing other taped material.
- minimum rack space 5 $\frac{1}{4}$ " or may be desk mounted.

These broadcast-quality type transports are available in playback only or record-playback combination models, in monaural or stereo. All units are equipped with slide-out chassis for easy maintenance.

For additional information on the Broadcast Cassette Playback and Recorder system, write:
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Product Marketing
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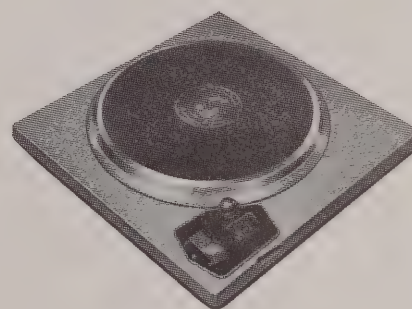
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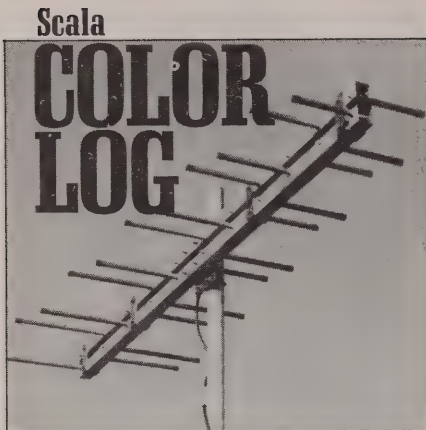
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- **High gain:** Unique combination of double boom and flexible transmission line makes it possible to take advantage of larger active regions, resulting in more efficiency. Model CL26 covers channels 2-6 with gain exceeding 10 1/2 db over isotropic source. CL713 covers channel 7-13, with gain exceeding 11 db over isotropic source.

- **Lower tower load:** Two models cover all 12 VHF TV channels, providing a coverage equal to or exceeding that of a dozen 5-element single-channel yagis.

- **Co-channel rejection** is possible because the Scala Color Log has a minimum of side lobes and a very high front-to-back ratio. Special arrays can be designed to solve additional co-channel problems.

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- **Extremely rugged:** Booms are 2" x 2" square 6061-T6 aluminum tube. Elements are 3/4" OD tubing laminated over 5/8" tubing, fastened to boom with 1/2" studs locked in position with 1/2" lock nuts. Fastenings are stainless steel. Scala Color Logs are fastened to tower at the balance point, not on an end, where a small load on the opposite end can cause an extreme load to tower and mounting brackets.

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The Television Board of Directors of the National Association of Broadcasters has elected A. Louis Read, president and general manager of WDSU-TV, New Orleans, La., as its chairman.

Donald F. Campbell, vice president and general manager of WMAR-TV, Baltimore, Md., was elected vice-chairman.

Both serve on NAB's 44-man board of directors as well as its seven-man Executive Committee.

As chairman, Read succeeds Hamilton Shea, executive vice president, Gilmore Broadcasting Corp., Harrisonburg, Va. Campbell succeeds Read in the vice-chairmanship.

Read is the immediate past vice-chairman of the TV Board; chairman of the Television Informational Committee (TIC) of the Television Information Office (TIO) and a member of the Board and chairman of the executive committee of the Radio Advertising Bureau. He is also a director of the Association of Maximum Service Telecasters.

The new TV Board Chairman is 57. He began his career in 1938 as commercial manager of WWL-AM, New Orleans. After service in the United States Navy and a stint in advertising, he returned to broadcasting in 1948, as general manager of WABB-AM, Mobile, Ala.

He jointed WDSU-AM-TV in 1949 as commercial manager, and since 1965 he has been serving as president of WDSU-AM-FM-TV.

Read is on the Board of Directors of the Bank of New Orleans, the Advisory Council of the Loyola University College of Business Administration, and the Board of Lay Regents of Xavier University of New Orleans.

In 1968 he was named "Louisiana Broadcaster of the Year" by the Louisiana Association of Broadcasters.

CONGRESS PASSES CPB BILL

This summer, Congress approved \$35 million for the Corporation for Public Broadcasting in fiscal year 1972 and \$13 million for the HEW Educational Broadcasting Facilities Program.

STATION MANAGEMENT

(Continued from page 22)

more spots, which most program directors dislike.

Public relations should fall under the station manager, news director, and program director. Too often, the public relations director is under the station manager. But, the program director should be involved in public relations in as much as the programming should reflect the public relations image, as well as the news director whose news coverage should fit the same image.

Now that the problem of relative power has been discussed, how should such "powerholders" be chosen? My personal opinion is that management should never be chosen by the staff. Too often, such an election becomes a popularity contest. One way of choosing successors is by the outgoing officer recommending a successor. Then, allow all staff members to request an interview for particular offices (the name of the recommended successor is kept a secret). Interviews by the entire executive management are held. If the person mentioned as a possible successor doesn't come forward, then he probably wasn't interested enough to assume the position. People like that you don't need. There are enough of them. It might also be good to have one or two staff members, chosen by the general staff, to participate in the interview and election procedures. (It might also be wise to have one or two people chosen by the general staff as non-voting members of the executive management.)

How often should offices be held? It is up to you to decide how long is long enough. That is, while no office should be totally unsecure and powerless to exercise an unpopular opinion means immediate expulsion, no office should be so secure that one can do most anything he wants and be unanswerable to anyone. "Votes of confidence" should be taken every semester. Such a vote should be done in two steps; first by the general staff, and then by the executive management. If some agreement can't be arranged whereby the root of the problem is discovered and rectified, then a successor should be chosen by the regular election process.

My next article will discuss ways of attracting and keeping staff members. I'd like you to write-in to this magazine to know your opinions. I'm sure I've hurt some people! The truth often hurts! Bravo for those of you who are perfect!

FIRST POST-DOCTORAL STUDIES AT TEMPLE

Temple University will offer the nation's first post-doctoral studies in communications starting in September, 1971. Dr. Kenneth A. Harwood, dean of the School of Communications and Theater, has announced.

"Purpose of the advanced studies," Dr. Harwood explained, "is to provide for those whose post-doctoral activities include advance research for publication and supervision of graduate research in communications."

The first participant accepted by the by-innovation-only program is Dr. Guido H. Stempel, III, professor of journalism at Ohio University in Athens, Ohio. He will spend the fall 1971 and spring 1972 semesters of his leave at Temple doing research for a forthcoming publication.

Dr. Stempel recently directed a study of the news media for the 20th Century Fund and was also elected chairman of the research committee of the Association for Education in Journalism.

Participation in the advanced studies will be limited to a maximum of six students having doctoral degrees, according to Dr. Harwood, who will super-

vise their activities. He noted that they will be able to take advantage of the extensive research facilities and libraries in journalism, radio, television and film, which are available in Philadelphia, as well as New York, Washington and Boston.

PUBLIC RADIO SURVEY IN CINCINNATI

WGUC-FM the University of Cincinnati public radio station, sent a survey to 6,000 listeners on the Program Guide mailing list last Fall. Twenty-three percent returned the questionnaires.

Some interesting facts emerged for WGUC-FM, including:

- 99 percent had FM radios at home
- 94 percent listened at home
- 39 percent had FM radios in cars
- 3 percent listened in cars
- 34 percent had FM radios at work
- 3 percent listened at work.

Favorite listening times are when WGUC-FM programs classical music, with evening between 8:30 and 11 p.m., and Saturday and Sunday afternoons being most popular.

JCR Book Store

RADIO NEWS HANDBOOK—Second Edition

By David Dary. A handbook for both aspiring and experienced broadcast journalists. Written by a seasoned broadcast newsman, it serves not only as a day-to-day guide, but also as a source of vital information for those practicing newsmen who are endeavoring to improve their professional status. For the beginning newsman, there is a solid grounding in radio news basics, mechanics, and style, plus necessary details on the workings of a radio newsroom. Students will find the book of great value as a source of information covering the practical phases of broadcast journalism. Broadcast announcers, salesmen, and even managers will find this guide helpful in understanding and working with their news departments.

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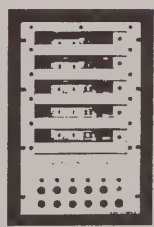


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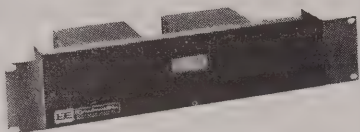
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ENGINEERING

(Continued from page 14)

Further information on choosing locks is available in the February 1971 issue of *Consumer Reports*, which includes results of tests on a wide variety of types.

Individual stations have experimented with burglar alarms. One has rigged rack-mounted tape machines so that removing a mounting screw trips the alarm. Another put in a set of door switches and an alarm loop to the campus police, but forgot to point out that it had both upstairs and downstairs studios. When the alarm went off one night the police searched the downstairs area in vain while a thief made off with several microphones from the upstairs studio. This says something about coordinating with the police beforehand. Incidentally, burglar alarm loops rented from the telephone company come under the "zero to thirty band" tariff and are much cheaper than voice lines.

There is no handy solution for record thefts aside from stenciling the station's call letters boldly across the front and back of each album, and enforcing a no-borrowing policy. Most record losses seem to be a borrow-it-and-forget-about-it effect. The same is pretty much true of recording tape, which has to be treated as an operating supply rather than a capital item. Small tools are, unfortunately, best regarded as expendable also.

Few stations keep an accurate inventory of their major equipment, including serial numbers. If a large theft occurs, however, this is exactly the information that will help the police get your gear back. The same data is necessary in filing an insurance claim.

Identifying portable equipment with painted call letters is only partly helpful because spray-on paint comes right off with the correct solvent. Additional identification with a hand engraver on the front panel is a good idea.

These precautions will reduce the risk of unwanted access to the station and equipment losses. They can pay off rather well.

TRANSISTOR CARRIER-CURRENT TRANSMITTERS: SOME IDEAS

Despite the virtual disappearance of the vacuum tube from the electronics industry, tubes hang on in c-c transmitters to this day. The reason for this unfortunate state of affairs is that no one has come up with a workable design to replace the

existing ones. The only partial exception to this is the hybrid design in Section 52.52 of the *IBS Master Handbook*. Transistors are a bit trickier to use at radio frequencies: they present more chances for parasitic oscillations, they are harder to modulate 100 percent, and they don't tolerate excessive peak voltages. But broadcast-band service is not too stringent, and a good design can overcome all these problems. The result can be c-c transmitters of unprecedented reliability.

To provide some background for development work, some published designs may prove helpful. *Transistor AF and RF Circuits* (H.H. Sams Co., 1965, \$2.95) contains 10-, 20-, and 40-watt transmitters for the 2.18-MHz marine band on pages 66, 69, and 86 respectively. These should be adaptable to the broadcast band by going to larger component values in the tuned circuits. They use fairly expensive output transistors, reflecting the availability of semiconductor devices at the time of their development, but there are numerous newer and cheaper substitutes. "Guidelines for Transistor Transmitters" in the April 1968 issue of *QST* gives an excellent outline of practical designs. "Parasitic Oscillation in High-Power Transistor RF Amplifiers" in the September 1970 issue of *Ham Radio* discusses methods for stabilizing RF stages. It shows a simple modulated output stage for the 1.8-MHz band capable of about five watts. Copies of the latter two articles are available on request from *IBS Engineering*.

In adapting transmitter designs for use in the broadcast band, it is possible to scale the existing tuned circuit values, within reasonable limits. A tuned circuit frequency is given by $f/1 (3.14/\sqrt{LC})$. To operate a transmitter at half its designed frequency, the product of L and C must be four times its original value. This is best obtainable by doubling both the inductance and the capacitance to preserve the original value of Q. In general, to change from f_{old} to f_{new} multiply both L and C by the ratio $(f_{old}/f_{new})^2$.

The value of an inductor is nearly proportional to the square of the number of its turns. To scale an inductor in terms of the number of its turns, multiply the old turns by the ratio $(\sqrt{f_{old}/f_{new}})$.

As an example, suppose a 160-meter (1.8-MHz) amateur transmitter is being adapted for 640 kHz. If the existing capacitor is 4,000 pF, the new one is 4,000 pF times $(1800/640)$ or 11,260 pF. If the

existing inductor is 12 turns of wire on a particular ferrite core, the new inductor is 12 turns times ($\sqrt{1800/640}$) or 20 turns.

One rather clever suggestion that has turned up is to direct-couple the final stage to a modulator of the common complementary-symmetry type (Figure 1).

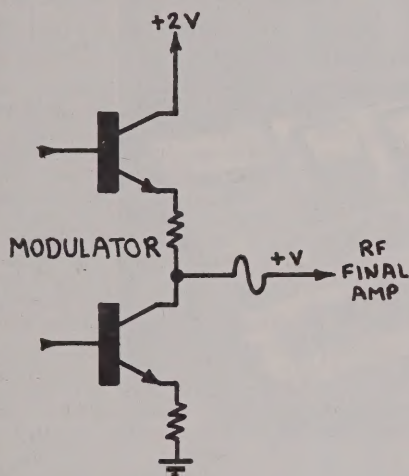


FIGURE 1.

This eliminates both modulation transformers and blocking capacitors. If the final stage is run at a voltage of (say) V with no modulation, a supply voltage of 2V is used and the modulator bias is set so that the final receives V when there is no audio. Full modulation will cause the final supply to swing between zero and 2V, which is the necessary condition for 100 percent amplitude modulation. To protect against a bias trouble in the modulator which might place 2V on the final continuously, a fast-acting fuse can be inserted in the final supply lead.

PUBLIC BROADCAST GRANT AWARDED

The Corporation for Public Broadcasting announced a grant of \$98,616 to the National Center for Audio Experimentation to finance its third year of operation.

The Center, which is located at public radio station WHA, Madison, Wis. is a joint project of the Corporation and the University of Wisconsin.

Announcing the grant, CPB President John W. Macy, Jr. said, "In its two years of operation, the National Center has made a significant contribution to the study of aural techniques and has helped generate a renewed interest in public radio."

The primary thrust of the Center's work

has been exploring and developing the uses of "binaural" sound. Binaural sound is created by using twin microphones placed not farther apart than the human ears and separated by an absorbent shield which simulates the human head. The listener wears headphones and the result is a sense of participating in the event.

The new project director of the Center is E.G. Burrows, on leave from the University of Michigan. He replaces Karl Schmidt, who will return to his full-time duties of Director of Radio, University of Wisconsin. Don Voegeli is the Technical Director of the Center.

NETWORK COMPLETION ORDERED BY FCC

The American Telephone and Telegraph Company has been ordered by the FCC to begin immediate construction of the network for the Public Broadcasting Service (PBS).

According to the FCC order, the remaining facilities needed to provide PBS with a full-time, commercial grade 71-point interconnection service must be completed by the end of March, 1972, and the full 110-point network by January 1, 1973.

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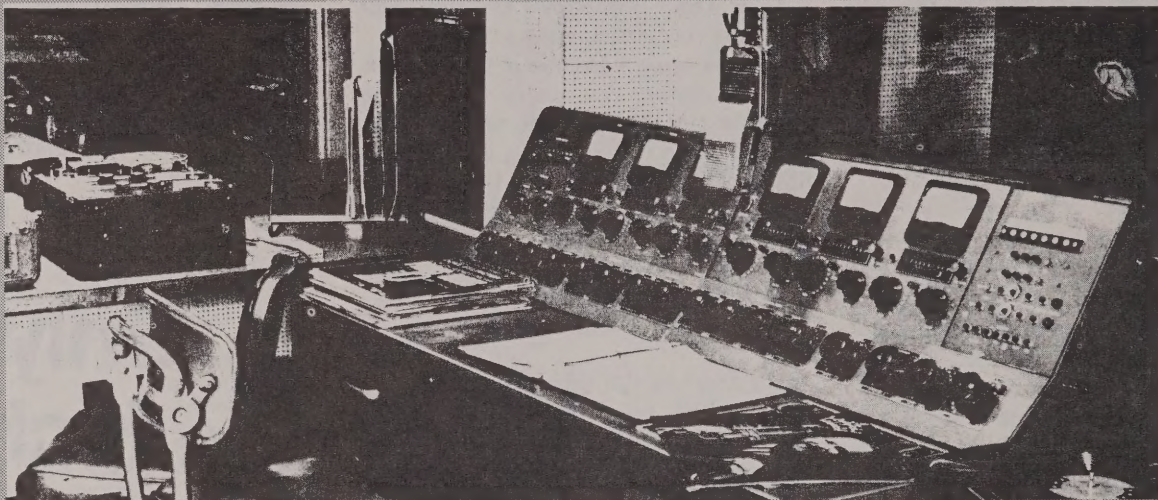
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EDITORIAL

FCC AND THE LYRICS

On March 5, 1971, the Federal Communications Commission released a public notice reminding broadcasters of their responsibility for knowing what is in the lyrics of songs they program. Now the Commission has elected not to clarify their clarification released April 16.

WYBC-FM, Yale University, and KUOP-FM of the University of the Pacific, had petitioned the FCC claiming that there were inconsistencies between the March 5 notice and the April 16 clarification order.

WYBC-FM also asked the Commission about the legality of a programming proposal. The FCC said it was "loath to embark upon individual rulings for individual licensees concerning their proposed handling of specific types of programming upon the basis of general policy statements not fleshed out by the licensees actual operation."

While the **Journal** can see the Commission's position on the ruling, it is difficult to see why a regulatory agency will not "assist" a station in further clarification of its rules and policies.

CONGRESS, BROADCASTING AND FIRST AMENDMENT

Much has happened this summer which will remain with the broadcasting industry for years to come.

One of the major cases in point was the Staggers-CBS dispute. In the final vote the House avoided a showdown between the Congressional right of inquiry and the broadcaster's freedom of press under the First Amendment.

Many see the sidelining of Stagger's citation recommendation as a victory for broadcasters. **TV Guide** called it "a wise decision." The publication's reasoning is—had the citation been issued, the case would go to the Supreme Court; if the Court upheld broadcasting, Congress would lose its control of the industry. If the Court ruled against Dr. Stanton, Congress would have to write new laws showing precise areas where broadcasting is free and where it is not free.

The **Journal** cannot see where this is a wise decision. It is time to start clearing up many of the "gray areas" concerning the electronic media.

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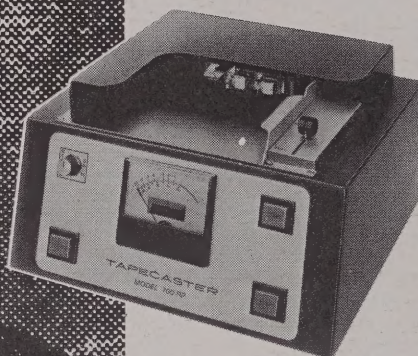
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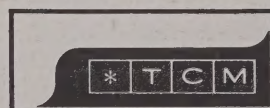
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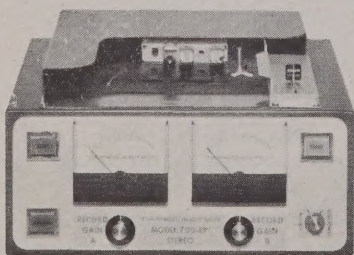


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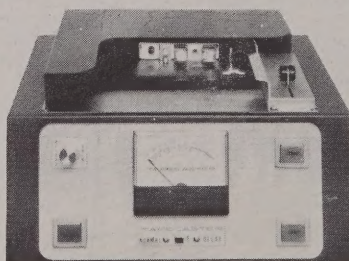


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